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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/727,098 | 11/29/2000 | Neil Alasdair James Jarvis | CISCP670 | 6808 |
| 26541 | 7590 | 01/28/2005 | | |
| RITTER, LANG & KAPLAN 12930 SARATOGA AE. SUITE D1 SARATOGA, CA 95070 | | | EXAMINER PEZZLO, JOHN | |
| | | | ART UNIT 2662 | PAPER NUMBER |

DATE MAILED: 01/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,098

Applicant(s)

JARVIS, NEIL ALASDAIR JAMES

Examiner

John Pezzlo

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 22-24 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 22, 23 and 26-28 is/are allowed.
- 6) ☒ Claim(s) 5-8, 24, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

For consistency between amended claims 1, 26, and 27, the examiner would appreciate if the applicant amends claim 27 and inserts in line 2 after "performing per-session routing" -- where all packets of a session are sent over a same active path --.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- I. Claims 5-7, 24, 29, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (US 6,363,077) hereinafter Wong.
1. Regarding claims 5, 24, and 29 – Wong discloses a method, system and computer medium of load balancing a packet at a router using per-session load balancing comprising:
 - receiving a packet at a router having an associated identifier (column 5, lines 4-16discloses that packets are received at a source device with a source port ID),

obtaining a source address and a destination address of the packet (column 5, lines 16-20 discloses receiving packet header information including a source and destination address),

selecting an output path according to a load balancing algorithm that uses the associated identifier (see column 6, lines 12-19, the source address, and the destination address (see column 6, lines 27-35) as inputs (Also see Figure 1 and column 5, lines 15-20. Figure 1 shows a load balanced port mapping system 168 that receives the packets, where the source and destination address can be extracted from, and the source pod ID of where the packets entered),

sending the packet to an output interface associated with the selected output path (column 5, lines 19-28.

2. Regarding claim 6 – Wong discloses where a look-up table that is configured using the associated identifier is used in the step of selecting (column 11, lines 10-25 discloses the use of a packet routing table 134 (Figure 4A). In this case the look-up table is used on every switch, therefore the identifier of the switch is known. The address field corresponding to the packet received by that particular switching device is read).
3. Regarding claim 7 – Wong discloses where the look-up table is configured at a set-up time of the router (column 11, lines 40-25 discloses the use of a packet routing table 134 (Figure 4A) in each switch. The table would understandably be configured when the switch is set up).

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4. Regarding claim 30 – Wong discloses where the computer readable medium is a CD-ROM, floppy disk, tape, flash memory, system memory, hard drive, or data signal embodied in a carrier wave (It is inherent that some sort of computer memory is utilized in the embodiment).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- II. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong (same as above) in view of Yu (US 6,363,077).
1. Regarding claim 8 – Wong discloses a look-up table method where the look-up table (column 11, lines 10-25 discloses the use of a packet routing table 134),

Wong, however, fails to expressly disclose where the table uses is a randomized hash look-up table.

Yu discloses a load balancing scheme across servers in a computer network that utilizes a class-to-server assignment table. (Column 8, lines 27-35, discloses the use of an assignment/hash table that assigns classes to servers. Column 10 lines 50-60, discloses that random class-to-server assignments can be used).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Wong's apparatus to utilize a randomized hash look-up table, as taught by Yu. The motivation is the ability to improve load balancing of packets through routers in the case of load imbalance by using a different, or randomized value, as explained by Yu in column 6, lines 30-35 and column 10, lines 27-31.

Allowable Subject Matter

Claims 1-4, 22, 23, and 26-28 are allowable over the prior art of record.

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 17 September 2004 have been fully considered but they are not persuasive. The applicant argues on page 9 of the response that Wong fails to teach identifier associated with a router. The examiner respectfully disagrees. The examiner has mapped the identifier to the source port ID as stated in the rejection of claims 5, 24, and 29 "receiving a packet at a router having an associated identifier (column 5, lines 4-16 discloses that packets are

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received at a source device with a source port ID)". The examiner believes a prima facie case of anticipation has been established.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Denecheau et al. (US 6,680,947 B1) discloses an auto adaptive load balancing in a connection oriented data transmission system.
2. Joffe et al. (US 6,185,619 B1) discloses a method and apparatus for balancing the process load on network servers according to network and serve based policies.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (571) 272-3090. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C.

or faxed to:

(703) 872-9306

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

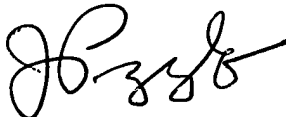
Jefferson Building

500 Dulany Street

Alexandria, VA.

John Pezzlo

26 January 2005


JOHN PEZZLO
PRIMARY EXAMINER